Bruhat Bangalore Mahanagara Palike

Executive Engineer
Yelhanka Division

DETAILED ESTIMATE

NAME OF WORK: **Providing Asphalting to Kenchenahalli main road and aruna aprartments road in ward no-02 of Yelhanka subdivision**

PROJECT COST: **99.00 Lakhs**

Mecadez Core Technologies Private limited

Project Management and Consultancy Services

Office: #103,1st Main, 3rd Cross, Kottigepalya,
Magadi Main Road, Bangalore 560 091
Ph: - +91-9538136111 +91-7829676869
E-mail: mecadez@gmail.com

BRUHAT BANAGLORE MAHANAGARA PALIKE

Executive Engineer-Yelhanka Division

Detailed Estimate

Name of Work: Providing Asphalting to Kenchenahalli main road and aruna aprartments oad in ward no-02 of Yelhanka subdivision

Estimate Amount : 9900000.00

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
				CIVIL WORKS					
1	Removing Slab of drain and Stacking **(Page No 25., I.No.5.32 of KPWD S.R 2015-16).**								
		Sqm							
	COVER SLAB								
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)	L/s	1	533	0.80		426.40		
	Deuction for Cross roads (533-522)+(127-115) = 23		-1	23	0.80		-18.40		
	Ch: (533 - 622)	L/s	1	89	0.90		80.10		
	Ch: (0 - 622)	R/s	1	622	0.90		559.80		
							1047.90	**63.72**	**66772.19**
2	Refixing Slabs of drains and Pointing in C.M(1:3) **(Page No 25., I.No.5.33 of KPWD S.R 2015-16).**								
		Sqm							
	COVER SLAB								
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)	L/s	1	533	0.80		426.40		
	Deuction for Cross roads (533-522)+(127-115) = 23		-1	23	0.80		-18.40		
	Ch: (533 - 622)	L/s	1	89	0.90		80.10		
	Ch: (0 - 622)	R/s	1	622	0.90		559.80		
							1047.90		
	Deduction for damaged 20%						-209.58		
							838.32	**78.84**	**66093.15**
3	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge- Data rate								
		Sqm							
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	210	0.90		189.00		
	Deuction for Cross roads (102-92)+(157-146) = 21		-1	21	0.90		-18.90		
	Ch: (125 - 210)	R/s	1	85	0.90		76.50		
	For Damaged portion						209.58		
							456.18	**1834.00**	**836634.12**
4	KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **(Page No141., I.No.19.1 of KPWD S.R 2015-16).**								
		Cum							
	Providing **precast slab of 100 mm thick** including cost of all materials, labour								

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amou in Rs
	Desilting								
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)	L/s	1	533	0.50	0.700	186.55		
	Ch: (533 - 622)	L/s	1	89	0.50	0.700	31.15		
	Ch: (0 - 622)	R/s	1	622	0.50	0.700	217.70		
	New Drain								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	189	1.20	0.900	204.12		
	Deuction for Cross roads (102-92)+(157-146) = 21								
	Ch: (125 - 210)	R/s	1	85	1.20	0.900	91.80		
	New Culvert								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	21	1.80	0.800	30.24		
	Cross roads (102-92)+(157-146) = 21								
							761.56	**168.76**	**128520.87**
5	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of mix1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted,in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No. KBS 4.1, 4.2 **(Page No 12., I.No.4.2 of KPWD S.R 2015-16).**								
		Cum							
	New Drain								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	189	0.90	0.100	17.01		
	Deuction for Cross roads (102-92)+(157-146) = 21								
	Ch: (125 - 210)	R/s	1	85	0.90	0.100	7.65		
	New Culvert								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	21	1.50	0.100	3.15		
	Cross roads (102-92)+(157-146) = 21								
							27.81	**5236.92**	**145638.75**
6	Providing and laying **Plain /reinforced cement concreteM20** for Box drain walls of thickness 10cm to 20cm including centring shuttering for work etc. complete as per approved drawing and design MORTH specification No.1500,1700,2200 **(Page No258., I.No.37.59.2 of KPWD S.R 2014-15).**								
		Cum							
	RAFT								
	New Drain								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	189	0.90	0.150	25.52		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Deuction for Cross roads (102-92)+(157-146) = 21								
	Ch: (125 - 210)	R/s	1	85	0.90	0.150	11.48		
	New Culvert								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	21	1.50	0.200	6.30		
	Cross roads (102-92)+(157-146) = 21								
	WALL								
	New Drain								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	2	189	0.15	0.900	51.03		
	Deuction for Cross roads (102-92)+(157-146) = 21								
	Ch: (125 - 210)	R/s	2	85	0.15	0.900	22.95		
	New Culvert								
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	2	21	0.20	0.800	6.72		
	Cross roads (102-92)+(157-146) = 21								
							123.99	**6931.44**	**859429.25**
7	KSRB 4.9.2 : Providing **T .M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 for TMT Bars Fe500 **(Page No 17., I.No.4.46.2 of KPWD S.R 2014-15).**								
		Tonne							
	from above item								
	For Drain			123.99*60 /1000			7.44		
							7.44	**69805.80**	**519313.27**
8	Providing **precast slab** of **250mm thick** including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge- Data rate								
		Sqm							
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)								
	for Cross roads (102-92)+(157-146) = 21		1	21	1.50		31.50		
							31.50	**5111.00**	**160996.50**
9	KSRB 14.6-1: Providing and laying **heavy duty cobble stones 60mm** thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications.Specification No. KBS **(Page No 101., I.No.14.6 of KPWD S.R 2015-16).**								

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amou in Rs
		Sqm							
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 92)	R/s	1	92	1.50		307.00		
							307.00	**934.20**	**286799.40**
10	Removing and resetting of kerb stones **(Page No 258., I.No.37.57 of KPWD S.R 2015-16).**								
		m							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)	L/s	1	533			533.00		
	Deuction for Cross roads (533-522)+(127-115) = 23		-1	23			-23.00		
	Ch: (533 - 622)	L/s	1	89			89.00		
	Ch: (0 - 622)	R/s	1	622			622.00		
							1221.00		
	Deduction for Damaged 30%						**-366.30**		
							854.70	**63.72**	**54461.48**
11	Providing and fixing **pre cast solid cement concrete kerb stones** made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork,curing,including cost of all materials, labour, hire charges of machinery, loading,unloading, lead and lift, transportation etc., complete. **(Page No 25., I.No.5.30 of KPWD S.R 2015-16).**								
		Nos							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	For Damaged portion		1	366.3			814.00		
	from Kenchenahalli railway track to appartment								
	Ch: (0 - 210)	L/s	1	210			467.00		
	Deuction for Cross roads (102-92)+(157-146) = 21		-1	21			-47.00		
	Ch: (0 - 92)	R/s	1	92			204.00		
	Ch: (125 - 210)	R/s	1	85			189.00		
							1627.00	**320.76**	**521876.52**

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	ROAD WORKS								
12	KSRRB M300-14. **Excavation for roadwork** in all type of soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 **(Page No 142., I.No.19.14 of KPWD S.R 2015-16).**								
		Cum							
	New Construction								
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00	0.425	624.75		
							624.75	**134.20**	**83841.45**
13	KSRRB 300-58. **Compaction of original ground** with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3 **(Page No 148., I.No.19.64 of KPWD S.R 2015-16).**								
		Cum							
	New Construction								
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00		1470.00		
							1470.00	**4.86**	**7144.20**
14	KSRRB M400-6.1. Construction of **granular sub-base** by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material **(Page No 154., I.No.20.4.2 of KPWD S.R 2015-16).**								
		Cum							
	New Construction								
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00	0.150	220.50		
							220.50	**1622.16**	**357686.28**
15	KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **(Page No 157., I.No.20.18 of KPWD S.R 2015-16).**								
		Cum							
	New Construction								
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00	0.225	330.75		
							330.75	**1713.96**	**566892.27**
16	KSRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WBM,WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 **(Page No 160., I.No.21.6 of KPWD S.R 2015-16).**								
		Sqm							
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00		1470.00		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amou in Rs
							1470.00	**32.40**	**47628.00**
17	KSRRB 500-2. **Cleaning the existing black topped** surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5**(Page No 160., I.No.21.2 of KPWD S.R 2015-16).**								
		Sqm							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		1	533	7.70		4104.10		
	Ch: (533 - 622)		1	89	8.50		756.50		
							4860.60	**3.24**	**15748.34**
18	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade Bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm , heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **(Page No 160., I.No.21.7 of KPWD S.R 2015-16).**								
		Sqm							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		1	533	7.70		4104.10		
	Ch: (533 - 622)		1	89	8.50		756.50		
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00		1470.00		
							6330.60	**15.12**	**95718.67**
19	KSRRB M500- 15. Providing, laying **dense graded bituminous macadam** using 40/60 THP capacity H.M.P with Mechanical paver Gr-II(50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.507 **(Page No 161., I.No.21.17.6 of KPWD S.R 2015-16).**								
		Cum							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		1	533	7.70	0.050	205.21		
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.00	0.050	73.50		
	Profile correction-6%								
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		1	533	7.70	0.050	12.31		
							291.02	**7927.20**	**2306952.3**
20	KSRRB M500- 15. Providing, laying **bituminousConcrete** using **40/60 THP** capacity H.M.P with Mechanical paver Gr-II(30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.509 **(Page No 164., I.No.21.22.6 of KPWD S.R 2015-16).**								
		Cum							

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		1	533	7.70	0.030	123.12		
	Ch: (533 - 622)		1	89	8.50	0.040	30.26		
	Arun Patios appartment road								
	Ch: (0 - 210)		1	210	7.50	0.030	47.25		
							200.63	**9822.60**	**1970737.71**

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amou in Rs
	ROAD FURNITURES								
21	KSRRB 800-1. Painting **two coats after filling the surface** with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8**(Page No 179, I.No.24.1 of KPWD S.R 2015-16).**								
		Sqm							
	Kerb Painting								
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)	L/s	1	533		0.300	159.90		
	Deuction for Cross roads (533-522)+(127-115) = 23		-1	23		0.300	-6.90		
	Ch: (533 - 622)	L/s	1	89		0.300	26.70		
	Ch: (0 - 622)	R/s	1	622		0.300	186.60		
	Arun Patios appartment road								
	Ch: (0 - 210)	L/s	1	210		0.300	63.00		
	Deuction for Cross roads (102-92)+(157-146) = 21		-1	21		0.300	-6.30		
	Ch: (0 - 92)	R/s	1	92		0.300	27.60		
	Ch: (125 - 210)	R/s	1	85		0.300	25.50		
							476.10	**61.56**	**29308.72**

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
22	KSRRB M800-13. Providing and laying of **hot applied thermoplastic compound** 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **(Page No 181., I.No.24.15 of KPWD S.R 2015-16).**								
		Sqm							
	Kenchenahalli cross from Doddaballapur road to Railway gate								
	Ch: (0 - 533)		2.5	533	0.10		133.25		
	Ch: (533 - 622)		2.5	89	0.10		22.25		
	Arun Patios appartment road								
	Ch: (0 - 210)		2.5	210	0.10		52.50		
							208.00	**473.04**	**98392.32**
	Sub Total								**9226585.78**
23	Cost towards Design Report and Detailed Estimate,PMC/Third party								**138398.79**
24	**Cost of Plastic@ 8% of bitumen qty for BC**	**Kg**	1	2263.14				**27.00**	**61104.79**
25	Cost towards DLP								**461329.29**
26	Misellenous and other charges								**12581.35**
	Grand Total								**9900000.00**

Certificate:-

1. That the workspot inspected by me and found work is necessary.
2. That the area comes with in the Bruhat Bangalore Mahanagara Palike Limits.
3. That the rates are adopted based on the PWD SR of 2015-16
4. That the provisions made in the estimate are necessary and quite essential.

Consultant:

For M/s MECADEZ CORE TECHNOLOGIES PVT LTD

Asst. Engineer
Ward No-02
BBMP

AEE
Yelhanka Sub Division
BBMP

Executive Engineer
Yelhanka Division
BBMP